

E-learning resource for *SNC2P – Biology: Tissues, Organs, and Systems*

- go to <http://resources.elearningontario.ca/>
- complete the login (see subject council minutes – October 2010 – for login info)
- click on “Search”
- enter the Resource ID: ELO1226140
- click on the corresponding link

Researching Diseases/Abnormalities (SNC2D DI Teaching/Learning Example)

Lesson Plan:

http://www.edugains.ca/resourcesDI/TeachingLearningExamples/ScienceTech/GR10_SCIENCE_ACADEMIC/ICSNC2DBIOLOGYRESEARCH.pdf

Appendices:

<http://www.edugains.ca/resourcesDI/TeachingLearningExamples/ScienceTech/GR10ScienceAcademicSNC2DResearchingDiseasesAppendix.pdf>

Gizmos

for *SNC2P – Biology: Tissues, Organs, and Systems* and *SNC2D – Biology: Tissues, Organs, and Systems of Living Things*

(header is hyperlinked to the corresponding gizmo)

Cell Division

Begin with a single cell and watch as mitosis and cell division occurs. The cells will go through the steps of interphase, prophase, metaphase, anaphase, telophase, and cytokinesis. The length of the cell cycle can be controlled, and data related to the number of cells present and their current phase can be recorded.

Circulatory System

LEARNING OBJECTIVES:

- Identify the four chambers of the heart.
- Trace the path of blood through the heart and lungs.
- Explain where oxygen enters the bloodstream.
- Describe how blood is carried through the body.
- Compare the functions of arteries, capillaries, and veins.
- Identify the components of blood. (Extension)
- Explain where various substances (carbon dioxide, urea, glucose) are added or removed from the bloodstream. (Extension)

VOCABULARY:

- artery, atrium, blood vessel, capillary, circulatory system, heart, platelet, pulmonary artery, pulmonary vein, red blood cell, urea, ventricle, vein, white blood cell

Cell Structure

Select sample cells from a plant or animal and place the cells on a microscope to look inside the cells. Information about their common structures is provided (and the structures are highlighted), but you will need to move your microscope slide to find all the different structures.

Cell Energy Cycle

Explore the processes of photosynthesis and respiration that occur within plant cells. The cyclical nature of the two processes can be constructed visually, and the photosynthesis and respiration equations can be balanced in a descriptive and numerical format.

SlideShare: Cells, Tissues, Organs, Organ Systems

<http://www.slideshare.net/scienceinteractive/unit-38-cells-tissues-organs-and-organ-systems>

Basic Anatomy

<http://web.jjay.cuny.edu/~acarpi/NSC/14-anatomy.htm>

SMART Resources – Plant and Animal Cells

<http://education.smarttech.com/ste/en-US/Ed+Resource/Lesson+activities/Notebook+activities/Browse+Notebook/Canada/Secondary/7-9/Biology/Plants+and+Animals.htm>

Medical Imaging Technology Roadmap (Industry Canada):

<http://www.ic.gc.ca/eic/site/mitr-crtim.nsf/eng/home>

Inside the Cell (free download):

<http://publications.nigms.nih.gov/insidethecell/index.html>

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Online Info Regarding Dissections:

<http://biology.about.com/od/onlinedissections/a/aa112805a.htm>